IHSA 81-0561

28 December 1981

MEMORANDUM FOR: Bruce Johnson, D/ODP
[redacted] D/OC 25X1
[redacted] Manager, MHF Design Effort [redacted] 25X1

FROM: [redacted] 25X1
Information Handling Systems Architect 25X1

SUBJECT: Function of the MHF in the Agency IHS Architecture

REFERENCE: Message Handling Facility Preliminary Requirements, November 16, 1981

1. While the reference document is a solid and thorough development of requirements, it is based on the assumption that current intention is that the MHF will be a CDS functional replacement and upgrade. It is understood also that the current intention is that the MHF will eventually incorporate most of the functional capabilities now provided by ODP's MPS. [redacted] 25X1

2. The problem with the assumption that MHF is a direct functional successor of the CDS is that we are already well along on a functional evolution which is taking us away from a monolithic, centralized dissemination and distribution (D&D) architecture to a layered one. The latter involves such new D&D systems as SAFE and APARS, as well as ODP's existing MPS [redacted] 25X1 It seems to me, we ought to proceed more deliberately with the development of the MHF. Before trying to complete the requirements, we need to agree on and specify the function or role of the MHF in our evolving IHS architecture. The functions of D&D are, in fact, at the very heart of the design of the Agency IHS architecture. [redacted] 25X1

3. Fortunately, we are not driven to a hasty implementation by a capacity problem. We have the CDS Upgrade coming on line shortly to replace the CDS, and that is scheduled to meet our capacity needs at least through 1985. To date, the CDS Upgrade effort is understood to be on schedule. [redacted] 25X1

4. The basic need that I believe we have is to work out and agree to the top-level intended functions and requirements of the MHF. At the level of the MHF, the allocation of functions and the functional subordination among the MHF, the MERCURY/NSC and the Metronet need to be resolved. This includes the assignment and architectural embedding of the DATEX function. Then there is the

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5. In general, this definition of the architectural role of the MHF is the principal concern, but there are a few specific concerns relevant to the requirements presented:

- o The initial design capacity and allowance for growth do not seem adequate. Based on historical capacity growth and projected demand, a prudent growth allowance might be something like the following: The MHF capacity will be appropriate to meet a 15 percent/year increase through 1986, referred to 1981 cable traffic. Thereafter, a 10 percent/year rate will be assumed. 25X1

- o The MHF should perform cable format transformations into and out of a small, standardized set of Agency cable formats. 25X1

- o The availability/reliability of the system should be specified in the functional requirements. 25X1

6. I agree with Bruce Johnson the current state of our architectural development presents an unusual opportunity to design the type of keystone dissemination system which will support our needs over an extended period of time. Usually, history and the characteristics of existing systems provide less freedom to design a system that is at the forefront of technology when deployed, and which can be readily enhanced to meet our needs as they grow. I think our current strategic planning effort for IHSs, particularly the system architecture portion, can be helpful in supporting the planning for the MHF. I know the MHF will be a significant aspect of the Strategic Plan. 25X1

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